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ABSTRACT

Schooling itself is not wicked, but schooling that seeks not to educate but merely to qualify is productive of many deplorable consequences (including "schooled" unemployment, irrelevance, ritualism, and cramping of the human spirit). The device of allocating occupational roles on the bases of certificates has only gradually replaced apprenticeship in the developed countries. Its consequences, which are bad enough in developed countries, are many times worse in the Third World. Perhaps the only way to rescue developing country schools for education (and so to make them genuinely contribute to development) lies in ceasing to use them as talent-testing machines and finding some other means of deciding who gets what jobs. (Author)

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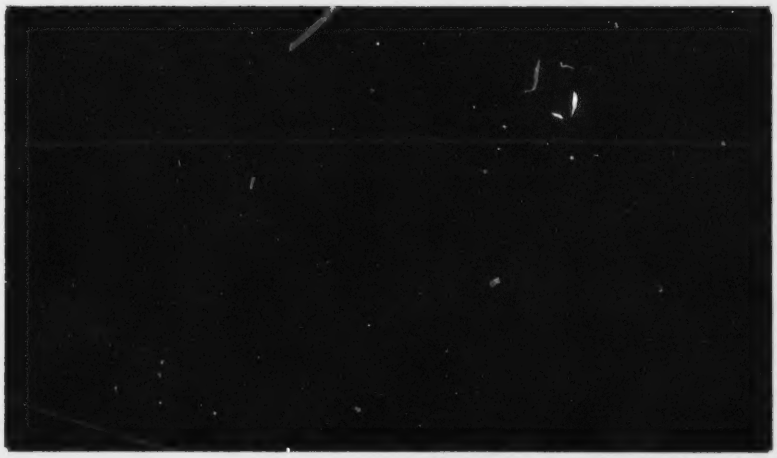

DISCUSSION PAPER

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DESCHOOL? TRY USING SCHOOLS FOR EDUCATION FIRST: THE EDUCATIONAL IMPASSE IN THE DEVELOPING WORLD

by

Ronald Dore

IDS DISCUSSION PAPER no. 6

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Summary

Schooling itself is not wicked, but Schooling which seeks, not to educate but merely to qualify, is, if not wicked, at least productive of many deplorable consequences. (Educated -- or rather "schooled" unemployment; irrelevance; ritualism and cramping of the human spirit.) The device of allocating occupational roles on the basis of certificate has only gradually replaced apprenticeship in the developed countries. Its consquences, bad enough in those countries, are many times worse in the Third World for a number of reasons which are spelled out. Perhaps the only solution, the only way of rescuing developing country schools for education (and so making them genuinely contribute to development) lies in ceasing to use them as talent-testing machines and finding some other means of eeciding who gets what jobs.

The range of human difference

Some people are bright; others are not so bright. Imagination, musical talent, wit, perseverance, charm, courage, the ability to command, the capacity for dispassionate reasoning, are all qualities unequally distributed in any human population. How much these differences are inborn, how much are due to education, will always remain a matter of dispute. The fact is that wide differences emerge in groups of children who have all received the same education and have come from similar family backgrounds. Indeed it might be said that the effect of education is more to make visible inborn differences than to obliterate them. Differences in musical talent or in calculating ability are less noticeable in those human societies where the only instrument is the human voice and the only use of numbers is to count sheep.

To be sure, in highly differentiated societies with a wide cultural gulf between the families and the schools of different social classes, the effects of education can be such that even ill-endowed members of the upper class can in fact seem brighter and more talented than better-endowed members of the lower classes -- and perform better in many occupations, particularly those requiring self-assurance and the ability to give orders. Cultural differentiation of this magnitude, however, is primarily a feature of European industrial societies. In the developing countries, with which we are concerned in this paper, such cultural differentiation is either far less marked -- as in Africa -- or else, as in South Asia, Southern Africa or Latin America, institutionalised in caste or racial differences, in such an extreme form that cultural factors cannot be said to give a competitive advantage to those from upper strata since there is, in fact, little competition between members of different strata.

Coping with the differences

The facts of human difference and the patterns of hereditary transmission involved in them, represent one of the most intractable and most dismaying sets of facts that any political and social philosophy and any set of social arrangements has to deal with. For an egalitarian, there is in principle no illogicality in demanding an equality of rights, a basic equality of dignity for all human beings while acknowledging differences in capacities. But one would feel on firmer ground if one did not have to make such acknowledgment -- vide the generous indignation with which egalitarians seek to dismiss all evidence of differences in average genetic endowments between population groups (either class groups or racial groups), as if to acknowledge the existence of such differences would be to undermine the demand for equal rights and equal respect.

These differences have always been awkward for non-egalitarian hereditary status societies, too. All societies admire some of these qualities which are unequally distributed -- whether it be intelligence, musical talent, physical beauty, or aggressiveness. It may happen that these valued qualities are possessed by individuals of low-born status not marked out for honour. Their absence in the high-born may be equally conspicuous: every upper class produces dunderheads who make inefficient rulers and military commanders.

If such incongruences between hereditary status and the deservingness of honour become too glaring, people might begin to question the social order.

There are ways of stopping this, however. Pomp and circumstance can cover a lot of deficiencies in performance. Such a divinity can be made to hedge a king that common people can touch the hem of his garment without ever noticing his clay feet.

A second way many status societies have dealt with the problem is by education. The lower classes contain many men of superior talents, but if you confine the opportunity to learn Latin tags to those of high birth, you can effectively choke off any danger that such upstarts might develop pretentions to be statesmen. If you can at the same time send merchants' children to schools which teach them to be better merchants, and peasants' children to schools which teach them to be better -- more diligent, loyal and obedient -- peasants, you have gone a long way towards solving your problems.

The coming of industrialisation

That is what schools and universities used to be for. They were about education and training; they existed to give people the knowledge and the attitudes suitable for the positions in society they were (anyway) to occupy. As for the attitudes, they rubbed off more or less without effort. As for the knowledge, the motive for gaining it lay in the prospect that the pupil was going to use the knowledge that he gained, or would need it for his self-respect.

In the early industrialising societies things changed in the late 19th and early 20th centuries. New occupations requiring new knowledge were constantly being created. In a less routine, constantly changing society, government and administration required more new decisions in new situations. Inefficiency became more glaring; knowledge requirements escalated beyond the capacity of the less well-endowed of the hereditary upper classes to make themselves minimally competent. Class barriers became more fluid; first because lowly people found ways of making more money than those who had simply inherited their top positions, later because some of them who were well-endowed with native talent acquired the knowledge which gave them an undeniable claim to middle and top positions in society. Nations in competition with each other began to accelerate this process because their governments saw a need to "mobilise the nation's talents", and at the same time egalitarianism increased the pressure for equality of opportunity.

Hence the pressure to rationalize the process whereby men were matched with jobs. In Britain, the utilitarians made access, first to the managerial ranks of the East India Company, and eventually of the home administration, dependent on schooling and competitive examination.

And so, slowly, very slowly, but inexorably, the schools and universities changed. They no longer were there to educate people for the positions to which it had pleased God to call them. They were there to sort people out, to give them different kinds of training according to their talents, to grade them and qualify them for positions their claim to which depended on those very qualifications themselves. New motives were thereby harnessed to the learning process. Children learned not just to acquire knowledge which they would need to use in their preordained positions, but to acquire knowledge by which they could gain

positions -- through qualifications which certified, on the basis of increasingly formalised examinations, what knowledge they had acquired. The schools' qualifying functions came to overshadow their educating functions.

The late-developing countries

In most of the contemporary developing societies schools started that way. Modern educational systems were built on the model of the by now increasingly qualification-oriented schools of the early industrialisers. They were built to staff the embryo modern employee sector of their economies by the same qualification-dependent mechanisms as had been developed in the advanced countries. From the very beginning getting -- or more often failing to get -- qualifications was what the schools were all about - except in a very few elite schools whose children were assured of top positions and whose teachers successfully transplanted the educational traditions of older European societies, almost the only thing the schools were about.

The scope and intensity of the selection process involved has varied between societies. In the more stratified societies the chance to qualify depended very much on status in the traditional society. Brahmins' and Hacendados' children found it easier to get a university qualification than low-caste or peasant children. Selection was mostly negative -- those children of the older upper status group who were naturally less well-educated might fail to gain the qualifications which guaranteed a smooth passage into the top positions of the modern sector (though some of them were still smart enough to transfer landed wealth into commercial and industrial wealth and to manage the transition in another way).

In the less stratified societies, such as those of Africa, the school system is more meritocratic. A much larger proportion of those who get to primary school have had relatively equal chances of proceeding to secondary, and thence of passing through subsequent ability filters to the universities. Even in the more stratified societies, too, egalitarian pressures have gradually widened the base of the school system and increased the opportunities for the able to be creamed off.

Unintended consequences

Equality of opportunity is deemed an excellent thing. Meritocracy, for all its 1984-ish overtones, is generally thought to be at least better than aristocracy. To be sure there are some, like the authors of the Faure Report (1), who consider the view that "it is in society's interest to select its most capable members for performing difficult or responsible tasks" to be a "narrow conception of human capacities and of the relationship between the individual and society" which "can and must - and, at any rate, will - be superseded". But still, they hold, not everyone can yet afford such visions. This "narrow conception" still "has its validity in countries where urgent needs for trained executives in the economy and administration lead to a meritocratic process of selection".

It is not, however, the narrowness of the ideals underlying the educational-credential-selection system which gives pause for thought in the developing countries. There is little disposition

(1) UNESCO, Learning to be, 1973, p.26.

to question it on ultra-egalitarian grounds. There is, though, an increasing realisation that it has unintended consequences of a disturbing kind. Those consequences are, to be sure, similar to those the system entails in rich countries, but, in societies with a relatively tiny wage-and-salary modern sector, they are enormously magnified in degree. Let us list them.

1. First, the desire to move up in society is widespread, the demand for education is strong; schools are a relatively cheap form of capital investment. Hence the production of qualified men and women outstrips the increase in the number of jobs for which they are qualified. Adjustments take place eventually. Employers used to taking secondary school boys as bank clerks are offered B.A.s at the same price. They take them. Gradually the B.A.s drive the secondary school boys out of the banks. A degree becomes a necessary qualification for bank clerks. This does not lessen the pressure to get qualifications. If you need a B.A. to become a bus conductor the pressure to press on for higher qualifications grows rather than diminishes. (And the numbers who start courses hopefully and finish them as frustrated drop-outs steadily increase, too). Many developing countries are already reaching the stage where ten years' schooling are necessary for <u>any</u> "job" -- any opportunity for wage/salary employment of relative stability in the modern sector, manual or non-manual, skilled or unskilled.

2. As a matter of the greatest concern, people watch the qualification/job market relation closely, but adjustments in expectations take time. Even when ten years of schooling have become the norm for any kind of "job", some people still manage to get "good" jobs as clerks and skilled craftsmen -- enough to keep alive the idea that those with ten years schooling are still now, as indeed they were ten years ago, entitled to a good job, and enough, consequently, to leave those who do not get the good jobs disappointed, aggrieved, and with a painfully diminished sense of their own worth. This lag in the process of lowering sights is particularly great at one crucial point -- when any given level of education ceases to qualify for any kind of modern sector "job". It is easier for people to accept the fact that the ten years of schooling which once qualified for an office desk now qualifies only for the factory bench, than to accept that there are now not even enough places at the factory bench for those with ten years schooling, and that many who leave school at that level can only resign themselves to the farming or the fishing of their ancestors -- perhaps in already overcrowded farms and fishing grounds. Already many developing societies have more than half of each age group entering the labour market with enough schooling to feel entitled to a "job" as an employee -- and only enough new slots in the wage sector of the economy to absorb less than a quarter of them.

3. People begin to doubt the rationale of the qualifying system. By the process described above a B.A. can become essential to become a bank clerk for reasons totally unrelated to the connection between what bank clerks <u>do</u> and what B.A.s <u>learn</u>. The same irrelevance can arise as a result of professional groups using brute collective strength to up-grade the qualifications needed to enter their professions -- in order to support their claims for higher wages and salaries.

4. Irrelevance results also from the divorce between the schools and the rest of life, the absence of any effective countervailing power to offset natural tendencies to bookish ritualism in school and university curricula. An engineer learns a lot for examination reproduction. It is not necessarily what he needs to know to be a good engineer.

5. These doubts about the practical relevance of qualifications spill over to the system of remuneration. When there is a neat hierarchial correlation between qualification, job and salary, the system justifies itself. When, however, the difference in qualification between a civil servant at 1,000 quants a year and a bank clerk at 500, is the few marks difference between a good B.A. and a poor B.A., the logic of the system becomes less compelling -- particularly in ex-colonies where the legacy of expatriate salary scales is a very steep structure of income differentials, institutionalised and protected by collective bargaining erosion by market forces.

6. A not so often noticed consequence is the effect on the schools and on the process of attitude formulation. Simplifying somewhat (and concentrating on primary/secondary selection, though the secondary/tertiary transition is no different) the chain of causation is:

The steeper income differentials between jobs,
And the more rigidly the qualification requirements of jobs are fixed,
And the more miserable unemployment makes the alternatives to getting qualifications,
Then,
The stronger the incentive of pupils to get qualified

And,

The more this is the dominant reason why they enter schools,

The more they ask of each proffered piece of knowledge, "will this help me in the exam?"

The more they go through their school life without thought of the use to which they knowledge might be put,

And,

The stronger parents' pressure for more schools and for equality of opportunity,

The greater the number of primary schools equipped to prepare children for secondary education,

The greater the competition between primary schools to get their children into secondary schools,

The more a school's success is measured by this standard

The greater the emphasis in the school curriculum on those subjects (especially maths and language) which show the greatest variation in performance and hence are favoured as the most discriminating tests,

The greater the emphasis within those subjects on teaching for examination success -- on learning to remember rather than learning to understand,

And,	And,
The more the qualification-orientation of pupils is reinforced	The greater the concentration of teachers' attentions on the bright boys who have a chance of making it.

The end result? On the bright boys, a "model pupil" shrivelling of the soul, a passive acceptance of the authority of Jovian examiners which not unnaturally produces the cautious official careful above all to avoid making mistakes, a ritualist who joylessly learns only because it is in the syllabus and who will eventually joylessly work only because it is in his job specification. On the less bright boys, a sense of failure; little pride in having become literate and numerate, because by the values of the school learning in itself counted for nothing when it did not qualify. Perhaps they also acquire a few other snippets of knowledge -- the principles of the lever, for example, so efficiently pre-packaged for examination reproduction, so firmly belonging to the arcane world of scholarship that no child would ever imagine it could have anything to do with the well-beam in his back-yard.

Why the backwash is worse in developing countries.

A caricature? Perhaps. But not one without a good deal of truth. The "backwash effect" of examinations on patterns of learning and its generally anti-educational effect, is a matter of great concern in the rich countries. Those backwash effects are infinitely more serious in developing countries for reasons already hinted at but worth listing systemically:

(i) because the rewards are so much greater. In rich countries secondary school may offer, say, a 15-20% increase in lifetime earnings and a modest enhancement of security and prestige status. In the typical developing country not only are salaries likely to be more than doubled; it is a matter of being in the corporate world of the twentieth century -- the world of careers, security, urban living -- or being totally excluded from that world, left -- as many see it -- to rot in the overcrowded inanity of rural life.

(ii) because schools belong to that "modern sector", purveying a knowledge and attitude content remote from the context of village experience. And the greater the gap between the culture of the school and the culture of the home and the more remote school work is from the child's daily experience, the more easily it becomes a mere ritual, a merely instrumentalised means of getting marks.

(iii) because the modern sectors of developing countries tend to be more completely bureaucratised, placing greater importance on educational qualifications, than the economies of the advanced countries. Britain and the U.S. still provide many opportunities for mid-career mobility and advancement by work performance; late developers tend to have a much higher proportion of administered careers entered by virtue of educational credentials.

(iv) because developing countries are poorer and their schools less well equipped. Schools which can afford laboratories and libraries have a better chance of awakening pupils' interest,

of developing discovery methods of learning, than schools in poor countries which cannot afford anything but chalk and talk.

(v) because of the difference in educational traditions. Countries where pedagogical traditions date back to pre-industrial times before educational certificates acquired bread and butter value find it easier to maintain the fiction that education is about moral and intellectual uplift and enrichment, than countries whose schools had selection/credentialling functions right from the very beginning of the educational system.

Teaching and selection: compatible objectives?

Is it absolutely necessary that a system with such dreadful consequences should be perpetuated?

Schools in all contemporary societies except one, do two things. They try to change people's capacities, attitudes, skills, in ways thought to be for the better. And they effectively decide which, among each age cohort of children, will eventually receive the positions of power and wealth and prestige in society which everybody covets. If the second, the selection function gets so badly in the way of the first, the teaching function -- so much more so in poor than in rich societies -- should one not try to do something about it? Should one not seek for alternative means of performing the (inevitably necessary) selection function, ways which do not involve the school, or if so not in a manner which has such devastating consequences for the teaching function, ie. for the business of education proper.

No-one at present seems to be looking for such alternatives. The educational world echoes to the apocalyptic voices of the deschoolers who want to abolish schools altogether -- as if somehow or other the business of deciding who gets what jobs will take care of itself. Reformers and traditionalists alike, within the educational world, conspire to ignore the selection function of schools and to talk as if schools were only about changing people -- improving them according to the traditionalists, clamping the walls of the prison house around their free spirits according to the reformers.

One can see why educators should want to exaggerate the importance of their role -- why they should want to believe that they mould people rather than merely sort them. What is less understandable is why they should have been aided and abetted in maintaining this illusion by the only other body of professionals who have been influential in determining educational policies.

I refer to economists.

The economics of education

A couple of decades ago the economists moved into the field of education. Manpower planners sought to predict the demand for different types of qualifications so that schools could be built in time to meet those demands. Rate of return analysis sought to compare the costs of educational investment with the benefits to individuals and to society.

Underlying these intellectual exercises was the observation of a set of little-disputed facts, interpreted by one mammoth assumption. The facts were:

If one ranks qualifications according to the years usually required to get them, other things being equal, in all societies the higher the qualification the higher the salary.

If an employer can get for the same wage two people of different qualification levels he tends (within limits set by such things as the fear of having bored and rebellious workers on his hands) to choose the one with higher qualifications.

Many people do calculate the cost to themselves in effort and money of getting extra qualifications against the gains likely to accrue to them in higher earnings.

The assumptions were:

(a) These habits persist because employing agencies are interested in the performance of jobs, and they find that selecting by qualification levels does in fact work; it seems to select the best performers.

(b) It does in fact work because by getting extra education and a higher qualification a man's capacities to perform are improved.

Assumption (b) rounds out the investment view. Many rate-of-return analysts would be prepared to admit that there is an element of monopoly profit in many professional or administrative salaries, but take the monopoly element away and what is left is return on investment. The input by the individual of effort and money is like the input of labour and hedge-plants and drain-pipes into improving land. The education certified by a qualification is a real capital asset like the improvement of land. The extra earnings are a return to that capital like the returns to land improvement. And there is no obvious reason, either, why private costs and benefits and social costs and benefits should not be equated.

But there is an alternative explanation which could equally fit the observed facts. It has recently become known as "the screening hypothesis". Employers' prejudices in favour of those with higher qualifications may be confirmed by subsequent performance because the better qualified were naturally brighter. In a situation of great equality of opportunity when everyone seeks to get as far up the educational ladder as he can, the opportunities to climb are rationed by tests of scholastic achievement. Achievement tests measure how much a man has learned -- which is largely a function of his intelligence and his capacity for sustained persevering effort within an accepted organisational framework. And it is precisely these capacities -- measured by, but not created by, his schooling, which make him a more satisfactory job performer. The investment anaology thus falls down. The effort the individual puts into getting qualified is only the land-owner's expense in getting a government certificate of soil quality out of a Gogolesque bureaucracy, or in paying a farmer to grow an experimental crop to show what the land can do. The returns are not the earnings of capital, but a form of differential rent.

This alternative explanation of the mechanism helps to settle the awkward doubts entertained about the relevance of qualifications. If they only measure native capacities,

relevance hardly matters. Why should it be surprising that people who have got a first class degree through the brilliance of their capacity to compose Greek hexamaters (in England) or to remember and manipulate legal codes (in Japan or Argentina) would eventually (despite their slower start) turn out to be no worse at managing the economy than those who got their first by mastery of the thought of J.M. Keynes?

Let us not oversell the idea. In engineering, in medicine, in agriculture and natural science, and even in the social sciences, the actual knowledge taught in qualifying courses obviously has a good deal to do with subsequent job performance. But still, for later reference, be it remembered that the academic achievements tests which qualify for admission to these professional courses can still be seen primarily as proxy tests for native intelligence and diligence. And there are other way of imparting this knowledge than through pre-career courses intended both to select as well as to train.

Nor can one ignore the non-cognitive effects of schooling. In the course of learning at the university to compose Greek hexamaters or to manipulate legal codes the future elite also -- and, it may be argued, more importantly -- become socialised into the upperclass culture of their society. They acquire the airs and graces which at once symbolise and reinforce eliteness; they gain an inner certainty and self-assurance which makes it easier to do those things like giving effective orders or coolly taking big decisions on inadequate evidence, which one is required to do in top positions in society 1/. It is not obvious though, why this process of socialising people for their work roles in their late teens is better carried on in a schooling context rather than a work context.

1/ Rate of return analysts, recognizing the threat from the screening hypothesis, have shown considerable interest in adopting this thesis of the importance of non-cognitive socialisation as a second line of defence. It still, unlike the screening hypothesis, assumes that what goes on in schools is important, preserves the investment analogy and hence keeps them in business, (See Mark Blaug, The correlation between education and earnings: what does it signify? Higher Education(1, i, Winter 1972,)and Education and the employment problem in developing countries, ILO Geneva, 1973 . The notion is also congenial to radical economists who stress the complementary functions of other than elite schools which train the masses to a suitably mindless docility, as the mechanism whereby education serves to perpetuate the power structure. The attraction of this view is, therefore, at its maximum for those radical economists who are also addicted to neo-classical rate-of-return calculations.

One would not wish to assert, either, that even in a a cognitive sense the investment mechanism does not work at all. Even if education is seen as the mere planting of an experimental crop to test soil fertility, farmers do, after all, have to clear the land first. Without going into the metaphysics of what is intelligence, let us assume that the testers are not all that far wrong when they suggest that: (a) the bundle of capacities measured by I.Q. tests is highly relevant to job performance; and that: (b) although the extent to which non-genetic environmental factors account for variance in performances on these tests varies with the range of variation in family/cultural backgrounds in a society and with the nature of the test, in few studies does the figure rise above 40%.[1/] In the case of qualities not normally covered by the I.Q. test bundle--the capacity for persistence, for co-operative activity in an organisation framework -- there may be an even higher element of learning involved; though one may question whether more than ten years of such learning is necessary for the required habits to be deeply ingrained. For some jobs other qualities are needed, such as initiative and creativity. Alas, these are qualities which most schools seem to be better at killing than developing, the more so the more qualification-oriented they get.

So what? Possible alternatives.

If one accepts these views, certain prospects are opened up. Is it really necessary to pump Greek hexameters into a man for sixteen years in order to test his capacity to learn to write pithy diplomatic telegrams? Can one not devise diagnostic tests for such capacities as intelligence, persistence, tact and sense of style which can be applied at an earlier age? Is there not a better way of organising occupational selection?

There is. It is hopeless to expect any advanced industrial country to adopt it except in the unlikely event of wholesale revolution. There might, however, be a slightly better chance in a developing country where the wage/salary sector is still small and mostly in the hands of the government, where institutions are newer and more flexible, and where the problem of educated unemployment is becoming rapidly more acute. The outlines are roughly as follows.

1. Let everyone have, as soon as it can be afforded, nine to ten years of general education -- to learn basic literacy and numeracy, to learn those things about his nation's history and the working of its institutions that all citizens need to know, to learn the sort of elementary psychology that mothers need to know and the elementary canons of ethics and of aesthetic enjoyment that all human beings need to know.

1/ See Peter Mittler, The study of twins, 1971 C. Jencks et. al. Inequality, 1972. Appx. A.

2. Get selection for first jobs by and large over with by 16 or 17, not only for manual jobs, but also for the professional occupations which now recruit graduates. Civil service administrators would start off as clerks and executive officers, teachers as pupil teachers, future engineers as craftsmen and trainee technicians, doctors as medical assistants, and those in the ability ranges (in some developing countries the less able sixty or even seventy per cent) whom the economy gives no real alternative but to be farmers and fishermen would discover that fact before they invested several years of heartache in trying to escape that fate.

3. Recruiting doctors from medical assistants, university teachers from school teachers, engineers from technicians, etc., is not simply to say: revert to 18th century European forms of professional apprenticeship. There will, of course, be a good deal more learning on the job, in say, engineering and medicine, but tertiary institutions will continue to exist in much their present form.. But they would provide in-service education and training, chiefly, but not exclusively, to men and women in their early twenties -- the future administrators drawn from the ranks of civil service clerks, the future engineers chosen from the ranks of technicians -- men and women whose greater maturity, greater sense of reality and of relevance, and greater sense of purpose might do a great deal to revitalise universities. (How many university teachers now recall with nostalgia the golden age of 1946-9 when the universities were filled with demobilised solders?). There is no reason why all this tertiary level schooling should be "training" of a vocationally oriented kind. Let it be possible, without much financial sacrifice (but not, any longer, with any prospect of financial gain) for anybody who has academic leanings, but especially those who are in the kind of job which makes their sanity and wisdom and human sympathy vital to the health of the society, to spend time studying and reflecting in a university on the nature of man and society, and art and work and the physical universe and the purpose of human life. Nor is there any reason why this learning and reflecting experience has to be concentrated in conventional 3 or 4 year courses concentrated in the early stages of a career. It could be recurrent; a year or two at age 20; another year 10 or 15 years later, etc.

4. The financing of such a system would be complex, but the total cost to society should everywhere be less than the cost of tertiary education today; the greater opportunity cost in production foregone of having more mature students studying would probably be amply compensated for by a diminshed demand for general tertiary education if graduate certificates were no longer the passport to jobs but merely a ritual celebration of achievement and sentimental symbol of a bond between teacher and student (or fellow-learners.) The detailed mechanisms of the system would also need various refinements to ensure (a) that there is no favouritism in the in-service selection for opportunities for training/promotion, (b) that in-service training does not bond people, (c) that there is enough leeway in the system to provide spill-over into self-employed entrepreneurship, the academic profession, etc., and (d) that talents which require continuous cultivation, mature early and spoil early -- like the highest mathematical or musical talent -- are not wasted. It is not impossible to devise such refinements.

5. Wherever selection is necessary:

---- in selecting for occupations at ages 16/17

---- in later selection for opportunities for training/ promotion

----(in societies which cannot yet afford nine years' education for all and must make, say, Grade VI to IX into a selective middle school) for selection within the school system;

avoid using achievement tests as far as is humanly possible, in order to escape the backwash effect of such tests.

The alternative selection device has to fulfill three criteria.

(a) It should not be something that a large proportion of classroom time can be spent preparing for.

(b) It should result in an eventual matching of jobs to men which is at least no worse than results from the present use of educational certificates.

(c) It should be seen by the people of the society as a legitimate way of putting people in the jobs everyone would prefer to have.

A lottery is an obvious means of fulfilling the first objective 100% (unless the days were spent in prayer, as one can imagine they might be in some societies.) As for the other two objectives, there might be some societies where it would be accepted as legitimate, but we might end up with rather less able surgeons and bus drivers. Partial use of lotteries can help to reduce backwash, however, as both the Tokyo Metropolitan government and the South Korean government have demonstrated in the last ten years in their forms of selection for high school and middle school respectively [1].

Something which approaches a lottery system in effect is a quota system to modify the effects of achievement tests. This has been tried in Yorkshire for selection from junior school to academic secondary, and appears to be common in post-cultural revolution in China -- for precisely the reasons suggested here. A junior school is told not -- as under the achievement test system -- all children who pass with more than 85% or all who come in the top 200, will be accepted, but: your 5 best pupils will be accepted. (Though to avoid favouritism etc., the selection is best done not by the junior school itself but by the secondary school or by some other outside agency). This (a) makes selection unpleasantly internecine and teachers are therefore prompted not to draw attention to it, and (b) they lose their present motive

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1/ See ECAFE, Economic Survey 1973, Part I Chapter IV

for concentrating on examination-preparation since there is no question of the number of children passing the selection examination being taken as a measurement of their performance. The quota system has the advantage that it can also be used to equalize opportunities as between educationally deprived rural areas and better endowed urban areas.

The favourite candidate to replace achievement tests is, of course, the aptitude test -- intelligence tests, tests of persistence, tests of cooperativeness, tests for creativity, divergent thinking, etc. Aptitude testing, is to be sure, still an underdeveloped art even in the rich countries and adapting what is known to different cultures would be costly. Where they have been tried (in Japan in the 1960s for university entrance specifically to reduce the backwash effect of achievement tests) they have usually foundered for several reasons:

(a) Because their advocates have usually tried to claim that they do better than achievement tests in getting round pegs into round holes -- whereas from the point of view adopted here, all one has to prove is that they are not so much worse in this regard as to cancel out their one immense advantage -- that they cannot, for more than a couple of weeks, be effectively coached for.

(b) Because they reduce the advantages of middle-class children whose parents can buy the coaching which boosts their achievement test performance but not their performance on intelligence tests -- and middle-class parents are articulate. In other words because it does make for greater equality of opportunity.

(c) For the more genuinely important reason that to adopt aptititude tests, to make all the good things in life depend on the luck of being born bright, rather than on achievement is to devalue the effort that goes into achievement. Apart from reducing the legitimacy of the resulting selection (given the sense of justice prevailing in most -- not perhaps all -- societies), this symbolic demotion of effort as a value may have long-term repercussions on society. (Though there is no reason why it should not be compensated for by propagating the notion that those who are lucky enough to be born bright and get good jobs have an extra responsibility to society to use their talents fully and conscentiously.)

One possible means of countering the last argument against aptitude tests is to devise an intermediate kind of selection device. For example, countries which already have complex administrative structures for conducting national examinations could convert them to teaching-and-testing operations. One week of the school year could be given over to the business of selection. During that week the testing authority would offer an intensive course by radio and correspondence in some subject, not announced beforehand, which does not normally figure in the school curriculum. It might be symbolic logic, astronomy, geology, or circus management, something which can be made intelligible to beginners, which requires some memorization, some capacity for abstraction and reasoning. An examination at the end of the week could then be used as a test of learning ability -- a mini-achievement test without backwash effects on the curriculum.

The advantages

What would be the advantage of substituting some variant of aptitude tests for the present system of achievement test selection?

1. It may even be that this would be a better means of occupational selection -- of getting round and s quare pegs into their respective holes. It is highly likely that it would not be worse than achievement tests. Even if it were worse, the change would be justified for the other advantages itemised below.

2. It provides a means of breaking through the escalating spiral of ritualistic qualifications which in the developing countries threatens very soon to produce, if not B.A. bus conductors, at least A-level doorkeepers.

3. It reduces the quantum of private pain-- experienced, for instance, by all doorkeepers who invested their twelve years of education hoping to be clerks but ended up, after agonizing months of frustration, lowering their sights to door-keeping.

4. The door-keepers might have a chance of actually getting twelve years of education -- not just twelve years of ritualis ed, qualifying, expectation-raising, schooling. The point of relying on aptitude tests is primarily to devalue achievement tests, in order to liberate the school curriculum from the incubus of examinations. If learning were not just a means to a status carrying an extra 50 quants a month, the distinction in the school between the "serious" subjects like maths, and language, and the unserious subjects like w oodwork and citizenship and farming, would tend to disappear. At present, all attempts to vocationalize,or pre-vocationalize, the primary or junior secondary curriculum seem to fail. Why? Because under the regime of achievement test selection one of two things happens when , say, woodworking is introduced into the curriculum. Either it does not count in selection for higher education, in which case it is an unserious subject which bright boys and their teachers will smile at with contempt. Or else it is made to count, in which case it is elaborated in order to make it as usefully discriminating a test as maths or foreign languages for selecting the top 10%. The syllabus is invested with all kinds of arcane lore about the history of carpentry and the generae of coniferous trees which effectively removes the subject into safe and bookish isolation from the real world. If the constraints involved in achievement tests are removed, schooling can be about education -- giving people knowledge and skills to use or to enjoy.

5. Aptitude tests permit a better approach to equality of opportunity than achievement tests. They reduce the differential advantage of those well taught in good schools.

6. If job selection is based on qualities explicitly accepted as being largely genetically determined, the justice of income differentials is called into question. It may be possible to argue that some differentials are functionally necessary to motivate people to acquire new skills in the course of their careers, but not that they represent a "just" reward for effort invested.

Of all forms of income, rent has always been the most morally vulnerable to attack from egalitarian ideas. This counts as a further advantage for those like myself with a bias in favour of equality. Moreover, if there were greater equality of income then any form of selection would be less painful (less would be at stake, not only in cash but also in social prestige which is affected by cash).

7. The ultimate effects on ideology would possible be wider. Systems of remuneration and incentives are gradually, in most societies, moving away from the basic capitalist market principle of which, as Marx said, the piecework system in industry was the quintessential expression. Work organisations are fumbling around for notions of "social purpose" "involvement", "organizational commitment" as alternative answers to "why work?" If jobs are seen to be allocated according to the luck of one's native talents so that effort is in fact devalued as an end in itself, and if, as is likely, society develops the alternative justification of effort as a social duty (see the argument above: not noblesse oblige, but bonne chance oblige), then the contemporary search for a new and more stable post-capitalist work ethic will be furthered.

The defenders of the status quo

If the arguments presented here have some validity, why is it that the wisdom of the ages has produced, in practically every country in the world, the kinds of qualifying institutions based on the investment assumption, which we have now? I have tried to show elsewhere 1/ how our present system of pre-career qualifications resulted from a variety of factors including the growth of self-interested professional associations in the advanced industrial societies and thence was unthinkingly and irrelevantly exported to the developing world.

But one needs to explain not just why the system developed but what sustains it. My characterisation of income differentials as rent is not original. Balogh and Streeten made the point -- admittedly rather more tentatively -- years ago. 2/. Some rate-of-return analysts have quietly adopted a 40% discount factor representing the amount of variance in earnings which might be attributed to native talents rather than schooling. But it is only in the last year or so that the "screening hypothesis" has been argued by economists with any great conviction and that the orthodox have been obliged to rally to the defence of the traditional

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1/ "The Late Development Effect", in H.D. Evers (ed) Modernisation in Southeast Asia Oxford University Press, 1973

3/ T. Balogh and P.P. Streeten, "The Co-efficient of Ignorance," Bulletin of the Oxford University Institute of Economics and Statistics, May 1963 pp. 99-107

investment view. 1/ Why? Because, I would suggest the screening hypothesis is a nasty one, and the conclusions which can be drawn from it, as I have tried to spell them out here, are equally disturbing to many groups of people.

First, it is particularly nasty for teachers. It is fine to be the creators and moulders of talents -- even, perhaps, the creators of a capital investment. Who wants to be relegated to the role of mere testers of innate talent?

Moreover, the alternative system outlined above would be a serious threat to teachers. For the first time in their lives they would be required to teach. Instead of simply going through an examination routine, coasting along on the tide of their pupils' materialistic motives -- "learn this or you'll never get a job as an engineer" -- they would have to appeal to moral and intellectual motives -- "learn this or you will never be a good conscientious, self-respecting engineer", "learn this so that you can experience the pleasure of mastering a difficult set of equations, so that your pleasure in the next novel you read will be that much more discriminating.

1/ See K. Arrow "Higher Education as a filter" in K.G. Lumsden, ed., Efficiency in Universities: The La Paz Papers, Amsterdam, Elsevier, forthcoming.

P. Wiles, "The certificate-not-content hypothesis" Higher Education, November 1973

P.J. Taubman and T. Wales, "Higher education, mental ability and screening", Journal of Political Economy Jan/Feb 1973

R. Layard and G. Psacharopoulos, "The screening hypothesis and the returns to education", Journal of Political Economy, (forthcoming)

Secondly, it is rather unpleasant for everybody else, too. Using aptitude tests sharpens, rather than glosses over, those differences in genetic endowments the distressing nature of which was dwelt on in the early paragraphs of this essay. They also devalue effort. Failure in an achievement test tells a man, "Sorry chum, you haven't tried hard enough. Have another shot next year." In the long run the "cooling out" process of several annual repetitions with gradually diminishing hopes may be much more painful that the sharp surgical verdict of the aptitude test: "Sorry chum; you're not in this class. Horses for courses." But people do not think so, and the generous instincts underlying these sentiments have to be respected. The unpopularity of 11-plus intelligence tests in England is a measure of the strength of those instincts.

Thirdly, the alternative system is especially uncongenial to intellectuals and professionals. There are three kinds of intellectuals: nice ones, nasty ones and the vast majority who share both qualities. Nice intellectuals dislike the view put forward here because it sounds arrogant and they feel guilty about that. (For some reason which has to do with where people feel the core of their identity to lie, it seems more arrogant to say: "I have had the luck to be born intellectually superior", than to say: "I have had the luck to be born in the middle class", or: "I have had the luck to be more capable of the sustained drudgery of swotting".) Nasty intellectuals dislike it because, as suggested above, it challenges the legitimacy of the high incomes they enjoy. The vast majority in between dislike it for both reasons.

Economists, finally, dislike the idea for special reasons. Differential rent always was an unpopular, messy kind of concept. How can we do beautifully refined calculations of rates of return if the inputs are not investments at all, but given, like the quality of the soil? How can one go on equating private and social costs and benefits, when the man "investing" effort to earn a qualification is clearly mistaken as to the nature of the process in which he is engaged? And how can one cope with the wretched refinements of product differentiation which become necessary when people start denying that a year of schooling is a year of schooling is a year of schooling, and insist on differentiating sharply between a year spent being educated and a year spent in ritualistic qualification?

Those who are at once economists, teachers and intellectuals can thus be seen to have multiple motives for upholding the status quo and the accepted educational ideology. They bear not a little responsibility for its entrenchment. Perhaps as they observe the growing misery associated in the developing world with what is usually called "educated unemployment" but should be called "qualified unemployment", some among them will begin to have doubts.

R. P. Dore
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